520 Tolling Implementation Committee Evaluation Results for All Scenarios

November 10, 2008

Selection Sele												
Procedure Company Co												
Procedure Company Co	Two-Bridge (520 & 90) Scenarios: 2010									Scenario 9:	Toll both	
Section Sect									than 90 in			
Reasonablemest* of Toll Raise*				project is complete		bridge in 2016		2016				
Tell Patients on Shoro in 2009 of others \$20 \$90	Estimated Bridge Funding	\$2,229M		\$2,457M		\$2,170 M		\$2,428 M				
Tell Patients on Shoro in 2009 of others \$20 \$90	"Decemble sees" of Tell Detect											
Michael S. P. PARS Michael S. 100 S. 1				520	90	520	90	520	90	520	90	
	Morning (5 – 9 AM)			020				020	30			
Severage Total Pelol	Mid-day (9 AM – 3 PM)											
Name	Afternoon (3 – 7 PM) Evenings (7 – 10 PM)											
Secretario	Nights (10 PM – 5 AM)											
Security Fig. Security Se	Weekends									\$0.80 - \$1.60	\$0.80 - \$1.60	
## Route Secretify Secreti	Segment											
## OF Place CPP	Average Toll Paid					\$2.	08			\$1.	.70	
200 Verbick Volume (Does not intotack transit riders)	Route		-	Scenario 3			Scenario 4		Scenario 8			
2021-04-06-06-06-06-06-06-06-06-06-06-06-06-06-	2010 Vehicle Volume (Does not inloude		Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	
Stage	520 Midspan	44,640				_				,		
Add at 987 (FG)						_						
### STOP Volkick Volume Changes (Compared with the 2010 Baseline volumes - cruckudes transit riders) **PART 1,741	I-405 at SR 167		101,770			_				57,800		
200.066/psin	Total Change	184,380	291,880			179,740	282,400			171,620	278,350	
200.066/psin		ed with the 2010 Base	line volumes -	- excludes trans	sit riders)							
SR 602 of 158	520 Midspan											
Food Change in Vehicle Volume (Compared with the 2010 Baseline Condition - excludes transit riders)	i-90 міаspan SR 522 at 61st										· · · · · · · · · · · · · · · · · · ·	
Percent Change in Vehicle Volume (Compared with the 2019 Baseline Condition - excludes transit riders) 1.17%	I-405 at SR 167					740	2,960			1,810	3,560	
200 Milliogen	Total Change					-4,640	-9,480			-12,760	-13,530	
1906 Managem		npared with the 2010 E	Baseline Cond	lition - excludes	transit riders)					_		
81 622 at 61 fast 25												
1990 1990	SR 522 at 61st					2%	2%			3%	2%	
200 Person Volumes (Includes transit riders) 200 Marginary 240 240 240 250 250 270												
\$25,000 \$65,000 \$65,000 \$65,000 \$65,000 \$65,000 \$65,000 \$65,000 \$71,000 \$75,	Total Change					-3%	-3%			-170	-5%	
60 Midspan												
\$8.952 at 61st												
Total Change	SR 522 at 61st	24,950	37,130			25,460	37,850			25,670	37,740	
2010 Person Volume Changes Compared with the 2010 Baseline Person volumes - includes transit riders 20.0 Medigam						_						
	Total Change	242,210	367,000		_	239,900	303,940			230,740	300,430	
1900 Misspan		ed with the 2010 Base	line Person vo	olumes - include	es transit riders		00.050			4.200	0.450	
SR 5922 at 61st	520 Midspan I-90 Midspan											
Percentage Change in Purson Volume (Compared with the 2010 Baseline Condition - includes transit riders) 12% 24% 8.920 11.870 14.410	SR 522 at 61st					510						
Percentage Change in Person Volume (Compared with the 2010 Baseline Condition - includes transit riders) 220 Midspan											·	
12% 24% 36 1-10% 3-1	rotal Change					2,100	0,020			,0.0	,	
590 Mids/span 3% 8% 8% -1.2% 94.5% -94		Compared with the 20	10 Baseline C	ondition - inclu	des transit rider		_2/10/-			_00/	-10%	
August St Riff Scenario S	I-90 Midspan											
Type of Diversion												
Scenario 3 Scenario 4 Scenario 8 Scenario 9												
Peak Peak Off Peak	<u> </u>											
Person Change by Type of Change (Compared with the 2010 Baseline Condition for each Route) 1.630	Type of Div	version										
2,270	Person Changes by Type of Change (Co		Baseline Con	dition for each		4.000				1 000	000	
Shift to JR 522	Shift to Transit Shift to I-90											
Changes Destination	Shift to SR 522					510	720			720	610	
Shift Time of Day	Shift to I-405 Changes Destination										,	
Percentage of Person Changes by Type of Change (Compared with the 2010 Baseline Persons on SR 520) Shift to Transit Shift to 190 Shift to 1	Total									-5,610	-9,810	
Shift to Transit 3% 1% 2% 0%	Shift Time of Day					8,9	940			3,8	880	
Shift to Transit 3% 1% 2% 0%	Percentage of Person Changes by Type	of Change (Compared	d with the 201	0 Baseline Pers	ons on SR 520)							
Shift to SR 522	Shift to Transit	•	_			3%				2%		
Shift to I-405 2% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5%	Shift to I-90 Shift to SR 522									1%		
Total Shift Time of Day Scenario 3 Scenario 4 Scenario 8 Scenario 9	Shift to I-405					2%	5%			5%	5%	
Route Free-Flow Speed Baseline Scenario 3 Scenario 4 Scenario 8 Scenario 9	Changes Destination Total											
Peak Off Peak Peak Off	Shift Time of Day											
Peak Off Peak Peak Off		Rasoli	ne	Soci	nario 3	Soon	ario 4	Soon	ario 8	Sacr	ario 0	
Average Peak Direction Corridor Travel Speeds from I-5 to I-405 (except I-405 which is from I-90 to I-5 in Tukwila) 36 54 33 47 520 GP Lanes 60 22 35 36 54 33 47 I-90 GP lanes 60 32 52 31 48 42 56 SR 522 GP Lanes 36 17 31 16 29 16 29 I-405 GP Lanes 60 23 32 23 32 22 32 Change in Average Peak Direction Corridor Travel Speeds from I-5 to I-405 (except I-405 which is from I-90 to I-5 in Tukwila) 520 GP Lanes 60 15 19 11 12 I-90 GP lanes 60 -1 -4 10 4 SR 522 GP Lanes 36 17 31 -1 -2 -1 -2 -1 -3	•	Peak	Off Peak	Peak	Off Peak	Peak						
1-90 GP Ianes 60 32 52 31 48 42 56 58 522 GP Lanes 36 17 31 16 29 16 29 32 32 32 32 32 32 32		Speeds from I-5 to I-4	05 (except I-40			ukwila)						
SR 522 GP Lanes 36 17 31 16 29 16 29 I-405 GP Lanes 60 23 32 23 32 22 32 Change in Average Peak Direction Corridor Travel Speeds from I-5 to I-405 (except I-405 which is from I-90 to I-5 in Tukwila) 520 GP Lanes 60 15 19 11 12 I-90 GP lanes 60 -1 -4 10 4 SR 522 GP Lanes 36 17 31 -1 -2 -1 -2 -1 -3												
Change in Average Peak Direction Corridor Travel Speeds from I-5 to I-405 (except I-405 which is from I-90 to I-5 in Tukwila) 520 GP Lanes 60 15 19 11 12 I-90 GP lanes 60 -1 -4 10 4 SR 522 GP Lanes 36 17 31 -1 -2 -1 -2 -1 -3	SR 522 GP Lanes 36	17	31			16	29			16	29	
520 GP Lanes 60 15 19 19 11 19 11 10 4 10 4 10 4 11 10 12 10 12 10 12 10 12 10 12 10 12 10 13 10 14 10 15 19 19 11 10 10 10 4 10 10 10 10 10 10 10 10 10 10 11 12 12 11 12 11 12 11 12 11 12 11 12 11 13 12 14 12 15 19 19 11 10 4 11 12 12 1 12 1 12 1 12 1 12 1 12	I-405 GP Lanes 60	23	32			23	32			22	32	
I-90 GP lanes 60 -1 -4 10 4 SR 522 GP Lanes 36 17 31 -1 -2 -1 -2 -1 -3		dor Travel Speeds fro	m I-5 to I-405	(except I-405 wl	nich is from I-90							
SR 522 GP Lanes 36 17 31 -1 -2 -1 -2 -1 -3	l l											
I-405 GP Lanes 60 23 32 0 1 0 1 0 0 -1 1		17						-1	-2			
	I-405 GP Lanes 60	23	32			0	1	0	0	-1	1	

^{*} These are example toll rates for planning purposes. Actual toll rates will depend on a final finance plan and determined by the State Transportation Commission with approval by the State Legislature.

520 Tolling Implementation Committee **Evaluation Results for All Scenarios**

November 10, 2008

Two-Bridge (520 & 90) Scenarios: 2016 Estimated Bridge Funding			Scenario 3: Toll both bridges in 2016 when project is complete		Scenario 4: Toll 520 bridge in 2010, and 90 bridge in 2016		Scenario 8: Toll 520 at a higher rate than 90 in 2016		Scenario 9: Toll both bridges in 2010		
							\$2,1	70 M	\$2,42	28 M	
"Reasonableness" of To	oll Rates*										
(Toll Rates are shown in 200	07 dollars)			520	90	520	90	520	90	520	90
Morning (5 – 9 AM) Mid-day (9 AM – 3 PM)				\$2. \$2.		\$2. \$2.		\$3.35 \$2.20	\$2.25 \$1.45	\$2. ⁻ \$1.0	
Afternoon (3 – 7 PM)				\$3.25		\$3.25		\$4.20	\$2.80	\$2.95	
Evenings (7 – 10 PM) Nights (10 PM – 5 AM) Weekends Segment			\$1.95 \$0.90 \$0.80 to \$1.60 \$0.40 to \$0.80		\$1.95 \$0.90 \$0.80 to \$1.60 \$0.40 to \$0.80		\$2.20 \$1.20 \$0.75 \$0.75 \$0.80 to \$1.60		\$1.00 \$0.75 \$0.80 to \$1.60		
Average Toll Paid			\$2.08		\$2.08		520 I-90 \$2.42 \$1.83		\$1.64		
Route		Base	Baseline		Scenario 3		Scenario 4		ario 8	Scenario 9	
2016 Vehicle Volume (does	not inloude trai	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
520 Midspan		51,430	82,380	46,340	74,360	46,340	74,360	43,110	71,490	46,310	75,700
I-90 Midspan SR 522 at 61st		62,877 20,370	87,633 30,360	51,000 21,550	69,150 31,450	51,000 21,550	69,150 31,450	52,150 21,220	72,390 32,310	50,300 21,140	72,100 31,750
I-405 at SR 167 Total Change		67,970 202.647	118,540 318,913	73,720 192,610	135,300 310,260	73,720 192,610	135,300 310,260	70,170 186,650	125,710 301,900	69,930 187,680	121,840 301,390
		- ,-	· ·	,	,	192,010	310,200	100,000	1 001,500	107,000	JU 1,J 2U
2016 Vehicle Volume Chang 520 Midspan	es (Compared	with the 2016 Bas	eline volumes -	excludes transit	riders) -8,020	-5,090	-8,020	-8,320	-10,890	-5,120	-6,680
I-90 Midspan				-11,877	-18,483	-11,877	-18,483	-10,727	-15,243	-12,577	-15,533
SR 522 at 61st I-405 at SR 167				1,180 5,750	1,090 16,760	1,180 5,750	1,090 16,760	850 2,200	1,950 7,170	770 1,960	1,390 3,300
Total Change				-10,037	-8,653	-10,037	-8,653	-15,997	-17,013	-14,967	-17,523
Percent Change in Vehicle \	/olume (Compa	ared with the 2016	Baseline Cond					-			
520 Midspan I-90 Midspan				-10% -19%	-10% -21%	-10% -19%	-10% -21%	-16% -17%	-13% -17%	-10% -20%	-8% -18%
SR 522 at 61st				6%	4%	6%	4%	4%	6%	4%	5%
I-405 at SR 167 Total Change				8% -5%	14% -3%	8% -5%	14% -3%	3% -8%	6% -5%	3% -7%	3% -5%
2016 Person Volumes (Inclu	idas transit rida	are)									
520 Midspan	ideo ilalibil IIDE	68,870	102,270	64,110	93,210	64,110	93,210	60,840	90,110	63,720	94,330
I-90 Midspan SR 522 at 61st		90,179 24,700	115,608 36,740	77,770 25,580	94,020 37,860	77,770 26,000	94,020 37,860	78,760 25,930	97,460 39,370	76,770 25,880	97,380 38,890
I-405 at SR 167		92,620	158,960	100,610	181,640	100,610	181,640	95,700	167,940	95,200	163,550
Total Change		276,369	413,578	268,490	406,730	268,490	406,730	261,230	394,880	261,570	394,150
2016 Person Volume Chang 520 Midspan	es (Compared	with the 2016 Base	eline Person vo	olumes - includes	transit riders)	-4,760	-9,060	-8,030	-12,160	-5,150	-7,940
I-90 Midspan				-12,409	-21,588	-12,409	-9,000	-11,419	-18,148	-13,409	-18,228
SR 522 at 61st I-405 at SR 167				1,300 7,990	1,120 22,680	1,300 7,990	1,120 22,680	1,230 3,080	2,630 8,980	1,180 2,580	2,150 4,590
Total Change				-7,879	-6,848	-7,879	-6,848	-15,139	-18,698	-14,799	-19,428
Percentage Change in Person	on Volume (Cor	mpared with the 2	016 Baseline Co	ondition - include	es transit rider	s)					
520 Midspan I-90 Midspan				-7% -14%	-9% -19%	-7% -14%	-9% -19%	-12% -13%	-12% -16%	-7% -15%	-8% -16%
SR 522 at 61st				5%	3%	5%	3%	5%	7%	5%	6%
I-405 at SR 167 Total Change				9%	14% -2%	9% -3%	14% -2%	3% -5%	6% -5%	3% -5%	3% -5%
						•				•	
	Type of Diver	sion		Scena Peak	ario 3 Off Peak	Scen Peak	ario 4 Off Peak	Scen Peak	Off Peak	Scena Peak	orio 9 Off Peak
Person Changes by Type of Shift to Transit			6 Baseline Con	dition for each R	320	610	320	720	340	470	170
Shift to I-90				-12,409	-21,588	-12,409	-21,588	-11,419	-18,148	-13,409	-18,228
Shift to SR 522 Shift to I-405				1,300 7,990	1,120 22,680	1,300 7,990	1,120 22,680	1,230 3,080	2,630 8,980	1,180 2,580	2,150 4,590
Changes Destination				-7,879	-6,848	-7,879	-6,848	-15,139	-18,698	-14,799	-19,428
Total Shift Time of Day				-5,370 5,9	-9,380 960	-5,370 5,9	-9,380 960	-8,750 7,	-12,500 560	-5,620 3,6	-8,110 60
Percentage of Person Chan	nes by Type of	Change /Compare	ad with the 2011					<u>, , , , , , , , , , , , , , , , , , , </u>			
Shift to Transit	acc by Type Of	onunge (compare	with the 2010	1%	0%	1%	0%	1%	0%	1%	0%
Shift to I-90 Shift to SR 522				2%	- 1%	2%	- 1%	2%	3%	2%	- 2%
Shift to I-405				12%	22%	12% 5%	22%	4%	9% 9%	4% 9%	4% 9%
Changes Destination Total				5% 19%	3% 27%	19%	3% 27%	10% 17%	20%	15%	16%
Shift Time of Day	t Time of Day			4%		4%		5%		2%	
Route Fre	e-Flow Speed	Base Peak		Scena Peak			ario 4	_	ario 8	Scena	
Average Peak Direction Cor	•		Off Peak 405 (Except I-40		Off Peak I-90 to I-5 in Tu		Off Peak	Peak	Off Peak	Peak	Off Peak
520 GP Lanes I-90 GP lanes	60 60	21 26	37 53	35 40	52 58	35 40	52 58	36 34	54 56	32 36	48 56
SR 522 GP Lanes	36	15	30	14	28	14	28	14	27	14	28
I-405 GP Lanes	60	25	36	24	36	24	36	24	35	24	36
Change in Average Peak Dir		r Travel Speeds from	om I-5 to I-405 (` .			•	45	40	44	40
520 GP Lanes I-90 GP lanes	60 60			14	14 6	14 14	14 6	15 8	16 3	11 10	10 4
SR 522 GP Lanes I-405 GP Lanes	36 60			-1 -1	-2 -1	-1 -1	-2 -1	-1 -1	-3 -1	-1 -1	-2 -1
, ,oo or Lanes		rposes. Actual toll ra				1		1	1	l L	-1

^{*} These are example toll rates for planning purposes. Actual toll rates will depend on a final finance plan and determined by the State Transportation Commission with approval by the State Legislature.